

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

<u>L8</u>	L3 same plasma	13	<u>L8</u>
<u>L7</u>	l3 same advantage	2	<u>L7</u>
<u>L6</u>	l3 near5 (advantage or advantageous)	0	<u>L6</u>
<u>L5</u>	L4 and high aspect ratio	5	<u>L5</u>
<u>L4</u>	L3 and @pd<20011203	147	<u>L4</u>
<u>L3</u>	(l1 or L2) near4 isotropic	175	<u>L3</u>
<u>L2</u>	"H.sub.2 "	213694	<u>L2</u>
<u>L1</u>	hydrogen	731677	<u>L1</u>

END OF SEARCH HISTORY

Generate Collection

L8: Entry 7 of 13

File: USPT

Jan 31, 1995

DOCUMENT-IDENTIFIER: US 5385857 A

TITLE: Method of manufacturing a semiconductor device with high packing density and having field effect transistors

Detailed Description Text (16):

Under masking by the mask 17, contact windows 19 are etched into the further insulating layer 16, see FIG. 9. Thanks to the presence of the etch stop layer 15 below the further insulating layer 16, the windows 19 may be etched both by a wet method, for example, in hydrogen fluoride, and by a dry method in a plasma. The etch stop layer 15 will always protect the insulated gate electrodes 31,41 and the surfaces of the source 32,42 and drain 33,43 regions against etching. In the present example, the flow glass layer 16 is first etched anisotropically over two thirds of its thickness in a plasma of CHF₃, after which the remaining portion is isotropically removed in hydrogen fluoride. The walls of the contact windows are given an optimal slope by the initial anisotropic etching treatment. In contrast to the CHF₃ plasma, hydrogen fluoride has a great etching selectivity for flow glass relative to silicon nitride, so that it is perfectly well possible to stop at the nitride layer 15. The isotropic etching character of hydrogen fluoride in addition promotes that no flow glass remnants, for example small edge portions, remain behind in the contact windows 19. Besides contact windows 19 to the source, the drain and the gate electrode of both transistors, a contact window 19 is also opened at the area of the first capacitance electrode 51 exposing the dielectric 15 there. The etching mask 17 is subsequently removed after the contact windows 19 have been formed.